

Seek the Gnarl¹

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Introduction

Somewhere in the 1990s, I adopted “seek the gnarl” as a personal motto. Indeed, I published an essay collection under the title *Seek!* and a story collection under the title *Gnarl!* To be rigorously logical, I might then have collected my poems as *the*, but that wouldn’t be poetic; in any case I’d already printed my early poems as a chapbook taking its name from the instructions on firecracker packages: *Light Fuse And Get Away*.

As a reader, I’ve always sought the gnarl: that is, I like to find odd, interesting, unpredictable kinds of books, possibly with *outré* or transgressive themes. My favorites would include Jack Kerouac and William Burroughs, Robert Shekley and Phil Dick, Jorge-Luis Borges and Thomas Pynchon. I try to write the kinds of books that I like to read — so as a writer, I’m also seeking the gnarl. In this essay I’ll discuss what I mean by gnarl, and some of the specific ways in which literature can be gnarly.

Gnarl

I use *gnarl* in an idiosyncratic and somewhat technical sense: to mean a level of complexity that lies in the zone between predictability and randomness. The original meaning of “gnarl” was simply “a knot in the wood of a tree.” In California surfer slang, “gnarly” came to be used to describe complicated, rapidly changing surf conditions. And then, by extension, something gnarly came to be anything with surprisingly intricate detail. As a late-arriving and perhaps over-assimilated Californian, I get a kick out of the word.

Do note that “gnarly” can also mean “disgusting.” Soon after I moved to California in 1986, I was at an art festival where a caterer was roasting a huge whole pig on a spit above a gas-fired grill the size of a car. Two teen-age boys walked by and looked silently at the pig. Finally one of them observed, “Gnarly, dude.” In the same vein, my son has been heard to say, “Never ever eat anything gnarly.” And having your body become old and gnarled isn’t necessarily a pleasant thing, but here I want to talk about gnarl only in a good kind of way.

Clouds, fire, and water are gnarly in the sense of being beautifully intricate, with purposeful-looking but not quite comprehensible patterns. And, of course, all living things are gnarly in that they inevitably do things that are

much more complex than one might have expected. The shapes of tree branches are the standard example of gnarl. The life cycle of a jellyfish is way gnarly. The wild three-dimensional paths that a humming-bird sweeps out are kind of gnarly too; and, if the truth be told, your ears are gnarly as well.

I derived the technical notion of gnarl from the work of Stephen Wolfram, best-known for his ground-breaking book *A New Kind of Science*. I first met Wolfram in 1984, when researching a popular-science article for *Isaac Asimov’s Science Fiction Magazine*. He made a big impression on me; in fact, it’s thanks to him I sought work in computer science. Simplifying a bit, we can say that Wolfram distinguishes among three kinds of processes:

- *Too cold.* Processes that are utterly predictable. This may be because they die out and become constant or because they’re repetitive in some way.
- *Too hot.* Processes that are completely random-looking.
- *Just right.* Processes that are structured in interesting ways but nonetheless unpredictable.

This third zone is what I call *gnarly*. Gnarl isn’t a word that other computer scientists use at this time, but I’m expecting my usage to become more popular with the publication of my nonfiction book *The Lifebox, the Seashell, and the Soul: What Gnarly Computation Taught Me About Ultimate Reality, the Meaning of Life, and How To Be Happy*.

Gnarliness lies between predictability and randomness. It’s an interface phenomenon like organic life, poised between crystalline order and messy deliquescence. Although the gnarl is a transitional zone, it’s not necessarily narrow. I’m going to find it useful to distinguish between *low gnarl* and *high gnarl*. Low gnarl is close to being periodic and predictable, while high gnarl is closer to being fully random.

Literature

So what does gnarl have to do with literature in general, and science fiction in particular? I’ll begin by presenting four tables that summarize how gnarliness makes its way into literature in four areas: subject matter, plot, genre tropes, and social commentary. For me, tables are a tool for thinking. I figure out some column headers and row topics, and then, *wham*, I’ve got all these nice cells to fill. Let me warn you that you need to take my tables with a grain of salt. They’re Procrustean beds. In Greek myth, Procrustes was a bandit masquerading as an inn-keeper. He said he had a wonderful bed that would fit you perfectly, no matter what your size. The catch was, if you were too short for the bed, Procrustes would stretch you on the rack; and if you were too tall, he’d lop off your head or your feet. Filling the cells of a table always involves a certain amount of Procrustean fine-tuning.

(a) *Subject matter and transrealism.* Regarding the kinds of characters and situations that you can write about, my sense is that we have a four-fold spectrum of possible modes: simple genre writing with stock characters, mimetic realism, the heightened kind of realism that I call transrealism, and full-on fabulation. Both realism and transrealism lie in the gnarly zone. Speaking specifically in terms of subject matter, I'd be inclined to say that transrealism is gnarlier, as it allows for more possibilities.

Complexity Level	Literary Style	Examples	Techniques
Predictable (Too cold)	Genre	Standard fantasy, SF, romance. Most TV and Film. Second-hand experience.	Modeled on books and films.
Low gnarl	Realism	John Updike, Anne Tyler, memoirs	Modeled on observed world.
High gnarl	Transrealism	Ulysses, New Journalism, Beat lit, Sheckley, Dick, Rucker	Realism + transcendence
Random (Too hot)	Fabulation	Magic realism, Hard SF, Lewis Carroll	Transcendence

(b) *Plot and emergence.* With respect to plot structures, I see a similar four-fold division. At the low end of complexity, we have standardized plots; at the high end, we have no large-scale plot at all; and in between we have the gnarly somewhat unpredictable plots. These can be found in two kinds of ways, either by mimicking reality precisely or by fitting reality into a classic monomythic kind of plot structure. The brute oddity of real events is, I would say, gnarlier than the more harmonious kinds of plots that we get by growing the plot upon the trellis of a classic plot structure such as the monomyth.

Complexity Level	Literary Style	Characteristics	Techniques

Predictable (Too cold)	Cookie-cutter	A plot very obviously modeled to a traditional pattern.	Monomyth
Low gnarl	Emergent plot.	A plot modeled on reality as grafted onto traditional story patterns. The reality acts on the story pattern to create unpredictable situations that the author tweaks so as to express subtext and subtle mental states.	Realism + monomyth
High gnarl	Roman à clef	A plot modeled directly on reality, with the odd and somewhat senseless twists that actually occur in the real world.	Realism
Random (Too hot)	Surrealism	Completely arbitrary events occur. (This is actually hard to do, as the subconscious, for instance, isn't all that random.)	Dreams, subconscious or, an external randomizer.

(c) *Genre tropes and thought experiments.* Turning to the scientific ideas that go into science fiction or the magical accoutrements that make their way into fantasy, I can distinguish four ways of incorporating these kinds of ideas.

Complexity Level	Style of Scientific Speculation	Characteristics	Techniques
Predictable (Too cold)	Rote	Received ideas of science and magic, used with no deep understanding on the part of the author.	Cut and paste.
Low gnarl	Tendentious	Exact but pedagogic science, niggling and overly detailed magic. Emphasis on limits rather than possibilities.	Modeled on known science or received ideas about magic, treated in a <i>limitative</i> fashion.
High gnarl	Surprising and creative thought experiments	Science and magic that makes you go <i>aha</i> . Rigorously working out the consequences of crazy ideas.	Thought experiments leading to new science.
Random (Too hot)	Irrational	Anything goes.	Abandoning logic.

(d) *Social commentary*. When we look at how a novel treats of existing social trends, we can again distinguish four levels.

Complexity Level	Style of Commentary	Characteristics	Examples
Predictable (Too cold)	Humorless propaganda for the status quo.	Parroting and advocating existing power structures with a complete lack of awareness. Sleep-walking.	<i>Star Trek</i> .
Low gnarl	Comedy	Noticing that existing social trends lead to contradictions and absurdities.	Pohl and Kornbluth's <i>The Space Merchants</i> .

High gnarl	Satire	Force-growing social trends into completely mad yet rigorously logical environments.	The work of Robert Sheckley and Philip K. Dick.
Random (Too hot)	Jape, parody, sophomoric humor	Everything's a joke, general silliness.	Douglas Adams, Ron Goulart.

This all bears further discussion. In the following four sections, I'll analyze the gnarly notions of transrealism, emergent plot, thought experiments, and satire that I've introduced via my four tables. But, in the interest of brevity, I'm not going to go into a cell-by-cell justification of my Procrustean tables. Rather than getting hung up on any single (and possibly erroneous) entry, you might best think of the tables as springboards for further discussion and thought.

Transrealism

Early in my writing career, my friend Gregory Gibson said something like, "It would be great to write science fiction and have it be about your everyday life." I took that to heart. Also Philip K. Dick was an inspiration here. I seem to recall that the flap copy of a British edition of *A Scanner Darkly* that I read at Brighton Seacon in 1979 referred to the book as "transcendental autobiography."

In 1983 I published the essay "A Transrealist Manifesto" in the *SFWA Bulletin* (reprinted in *Seek!*, also available on my web site). I don't remember exactly why I wrote this article. Perhaps I was inspired by the inflammatory style of Bruce Sterling's zine *Cheap Truth*. And certainly I had a beef: although I was starting to get some novels published, I was having a lot of trouble selling my short stories. (It's my impression that science fiction magazine editors are more conservative than science fiction book publishers.) Like any young artist's manifesto, mine was designed to announce that my style of doing things was the One True Way — or at least a legitimate way of creating art.

Quite simply, transrealism is *trans* plus *realism*, a synthesis between fantastic fabulation (*trans*) and closely observed character-driven fiction (*realism*):

Trans. Use the SF and fantasy tropes to express deep psychic archetypes. Put in science-fictional events or technologies which reflect deeper aspects of people and society. Consciously manipulate subtext.

Realism. Possibly include a main character similar to yourself and, in any case, base your characters on real people you know, or on combinations